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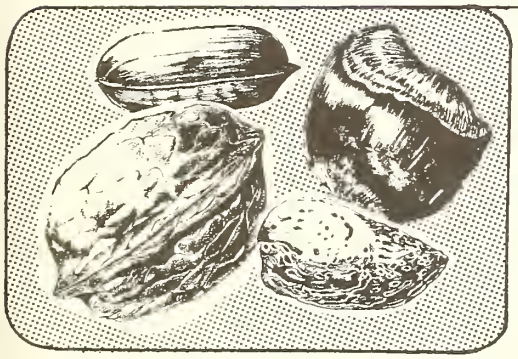
CHANGING MARKETING PATTERNS FOR DOMESTIC TREE NUTS



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CHANGING MARKETING PATTERNS FOR DOMESTIC TREE NUTS

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ABSTRACT: During the period 1960-1973 total production of domestic tree nuts nearly doubled and the value of production more than tripled. Pecans, walnuts, and almonds each comprise about 30 percent of the total production; filberts and Macadamia nuts account for the remainder. Marketing agencies have declined in number but increased in size during the past 13 years. Marketing channels and outlets have remained about the same, except that prepared dry cereals are a new outlet for almonds and pecans, and gift packs have become more important for all tree nuts.

Key Words: Almonds, filberts, pecans, walnuts, tree nuts, marketing outlets, distribution.

Tree nuts have been grown and consumed in the United States since colonial times, but the production of almonds, filberts, pecans, and walnuts on a commercial basis dates back probably less than 75 years. During the period 1960-1973, total production of tree nuts nearly double while the value of production more than tripled. Before the 1930's, the U.S. imported more tree nuts than were produced domestically, but in recent years imports of types of nuts produced domestically have been a minor part of our total supplies (with the exception of filberts).

The rapid expansion of the tree nut industries has been marked by wide fluctuations in the quantities of the various kinds of nuts produced, resulting in marketing problems for growers and marketing organizations. This paper documents the growth of the domestic tree nut industries in recent years and gives a brief review of the marketing agencies and marketing channels for each of the four major domestic tree nuts.

Domestic Production Increases

Commercial production of the four major tree nuts in the United States has trended upward during the past three decades (Figure 1). In 1973, a record crop of approximately 449,300 tons of tree nuts (including 5,500 tons of Macadamia nuts) was produced. The 1960-64 average production was 277,563 tons, and this included the previous record crop of 340,000 tons in 1963.

Traditionally pecans and walnuts have been the largest domestic tree nut crops, but during the 1960's there was a rapid increase in bearing acres and production of almonds, which now account for about one-third of the total production. This compares with 15 percent of the total crop in the 1930's and 20 percent in the 1950's.

Commerical acreages of almonds and walnuts are located in California; filberts, and a few walnuts, are located in Oregon; and pecans are produced commerically in 15 Southeastern, Southcentral, and Southwestern States, ranging from North Carolina in the east to Arizona in the west and northward into southern portions of Missouri and Illinois. When Hawaii became a State, Macadamia nuts were added to our domestic tree nuts, and since 1970 extensive plantings of pistachio nuts have been made in California and Arizona. These will be important domestic tree nuts in the years ahead.

All of the commercial acreage of almonds is in California, principally in a central belt about 700 miles long. Between 1960 and 1974, total commerical bearing acreage of almonds increases 157 percent, and output increased 240 percent from 53,000 tons in 1960 to 180,000 in 1973 (Figure 2). Due to fluctuations in yields, comparisons of 2 years may be misleading. However, production during the 1969-73 period was 106 percent greater than during 1959-63.

Nearly all of the acreage used for producing filberts is in Oregon, with most of the plantings in the Willamette Valley. The remaining acreage is located in the southwestern section of Washington. Commercial production of filberts was first reported in 1930 and during the 1930's and 1940's percentage increases in acreage and production were impressive. However, acreage declined from approximately 26,000 acres in the early 1950's to about 21,000 acres in 1972 and during the entire period production has fluctuated around the 9,000-ton level (Figure 3). Much

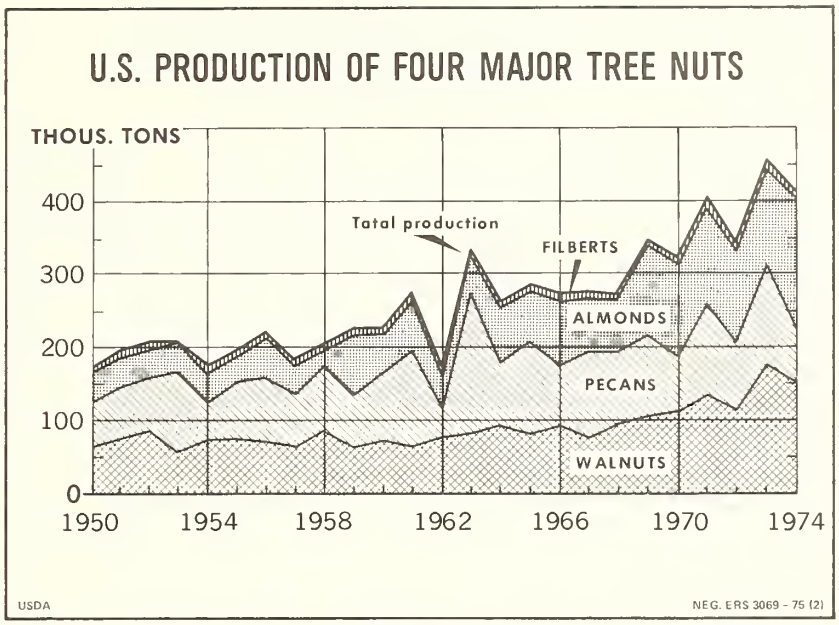


Figure 1

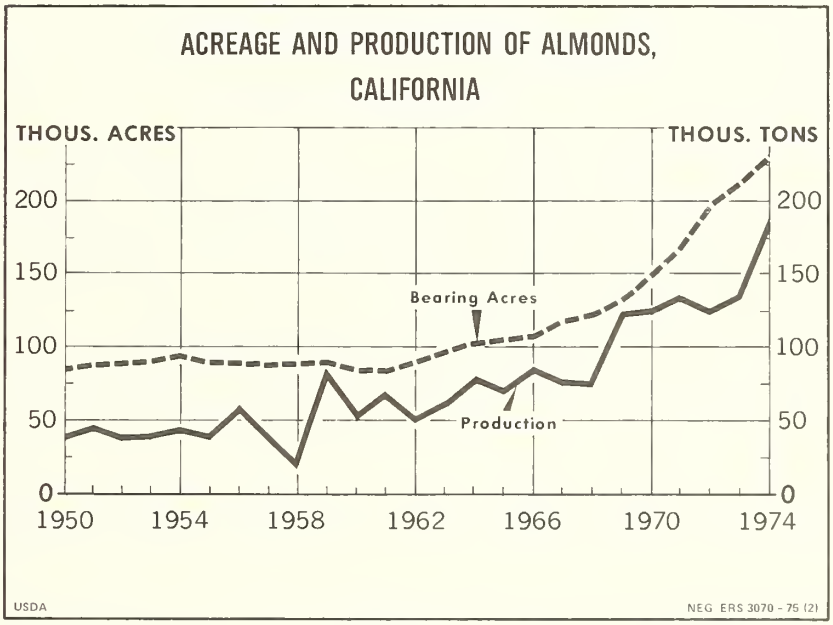


Figure 2

of the loss in acreage was due to severe weather in 1962 and 1967.

More than 90 percent of the domestic walnut acreage is in California. In recent years the center of walnut production has moved from southern California northward to the San Joaquin and Sacramento Valleys and the coastal valleys both north and south of San Francisco. Most of the remaining domestic walnut acreage is found in the Willamette Valley of Oregon and a few walnuts are produced in southwestern Washington. Total acreage of bearing walnut trees rose from approximately 140,000 acres in 1950 to nearly 168,000 acres in 1973 (Figure 4). During the same period production rose from 65,000 to approximately 155,000 tons. Thus, a 20 percent rise in acreage produced a 138 percent increase in production, indicating additional acres coming of bearing age during the period and the rapid increases in production efficiency by the California walnut industry. The Oregon walnut industry has been severely damaged by periodic weather catastrophies and is expected to be of decreasing importance in the commercial production of walnuts.

Pecans are grown in widely scattered areas of the United States, but those entering commerical channels are usually harvested in the southern tier of

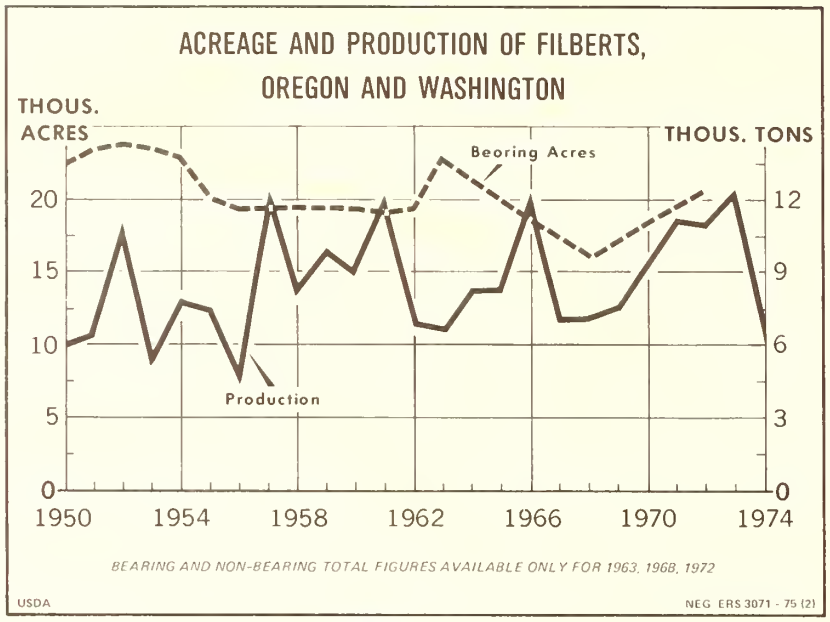


Figure 3

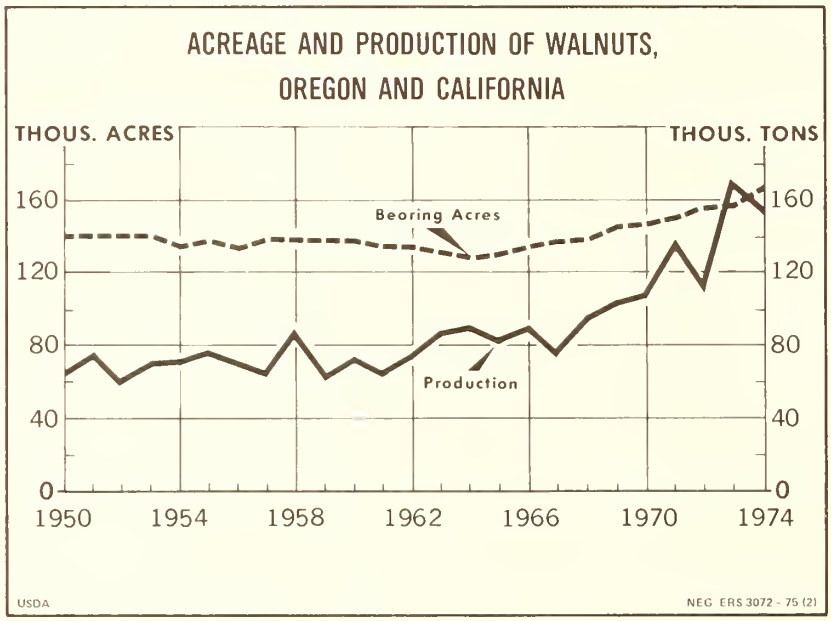


Figure 4

the United States. There are no accurate national data on total acres of pecan trees, because many pecan trees are wild or seedlings, ones that have volunteered along streams and on broad alluvial plains throughout the South. Total production of pecans has shown a steady upward trend, with sharp variations in year-to-year production because of the biennial production habit of pecan trees (Figure 5). During the 1969-1973 period, cultivated varieties comprised 55 percent of the total pecan crop, a slight increase from 1959-63 when improved varieties accounted for 53 percent. Georgia, Alabama, Mississippi, and New Mexico usually lead in the production of improved varieties. Texas, Oklahoma, and Louisiana produce most of the seedling pecans. Average total production of all pecans increased 47 percent between the 1950-54 and 1969-73 periods.

Marketing Tree Nuts

There are less than 100 firms in the United States that are directly engaged in shelling tree nuts (or otherwise preparing them for market), and selling them to retail, wholesale, and industrial outlets. Approximately 45 of these firms are primarily engaged in marketing pecans. The remaining firms

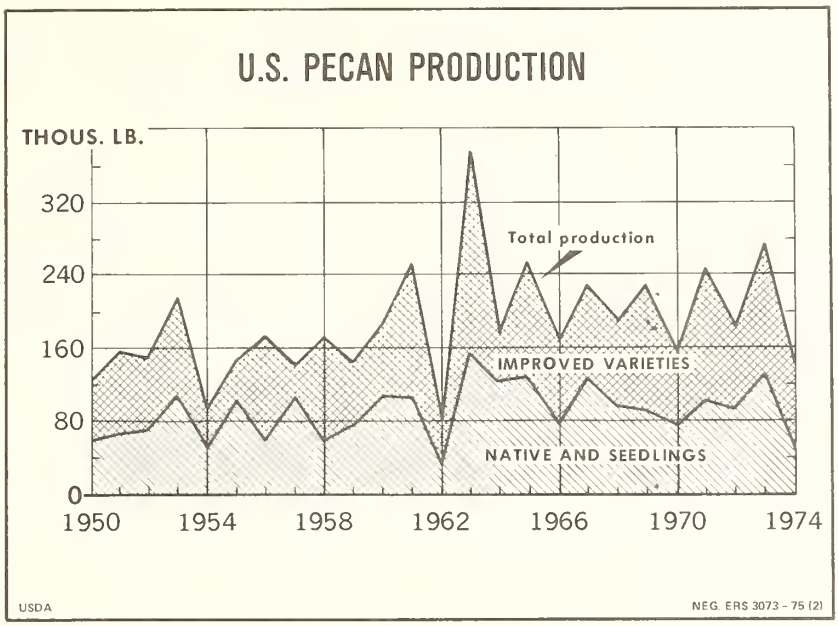


Figure 5

handle other types of nuts and are all located in California and Oregon. Marketing data in this article are based on information obtained from 44 firms that shell and process pecans, 21 firms engaged in the marketing of almonds and walnuts (most firms that handle one also handle the other), and 8 firms that market filberts. These data exclude the many accumulators of pecans scattered throughout the South and the accumulating stations for almonds, walnuts, and filberts in California and Oregon.

Almonds

The entire crop of almonds is marketed by about eight major firms and seven smaller ones, some of which are in the market only occasionally. Interviews were held with nine of the firms during the summer of 1974, and data were collected on the 1973-74 crop. The leading firm in the almond industry is the California Almond Growers Exchange, a cooperative which markets approximately 70-80 percent of the crop, depending on the year. The Exchange handles almonds exclusively, while most of the other firms handle other nuts as well. At least three of the firms are, or are subsidiaries of, large food corporations that market other food products as well as other kinds of domestic and imported tree nuts.

Of the nine principal firms interviewed, five were corporations, two were proprietorships, and two were cooperatives. The California Almond Growers Exchange, the oldest, has been in business 65 years. Two of the firms, one cooperative and one corporation, have been in business about 15 years.

Filberts

Interviews were obtained with eight firms in Oregon that market filberts. More than 80 percent of the sales of in-shell filberts were made by the four largest handlers. Over half of the total sales of filberts was made by two of the largest handlers.

Six of the Oregon firms were corporations, one was a proporietorship and one a cooperative. In 1963, there were three cooperatives marketing filberts in Oregon. The one cooperative interviewed in 1974 has since declared bankruptcy. The marketing of filberts has always been marked by rivalry among the marketing agencies and particularly among the cooperatives. Partially because there was no cohesive force in the filbert industry, marketing patterns within the industry have been slow to change. Most of the domestic filberts are marketed in-shell. Part of the reason for this is the sharp competition from imported shelled filberts. Handlers believe that demand for in-shell filberts is inelastic, in contrast to very elastic demand for domestic shelled filberts. Thus, a nearly constant quantity of in-shell filberts is sold each year, and the amount shelled varies directly with the size of the crop and prices of imported filberts. Imported shelled filberts usually comprise more than half of the total supplies. In most years, grower returns for in-shell filberts have exceeded the returns from shelled filberts. The volume regulation under the marketing order for filberts covers only the marketing of in-shell filberts.

Pecans

The number of firms involved in the accumulation, shelling, and processing of pecans declined from 136 in 1961 to 124 in 1974, and the number of pecan shellers declined from 77 to 44. The number of firms declined most in Georgia and Texas, the leading pecan States, but Georgia continued to have the largest number of shellers (13), followed by Texas and Alabama with six each.

Large Firms Increase; Small Firms Decline

Shelling firms were grouped according to the number of pounds of pecans shelled during the year (Table 1). The smallest group shelled less than half a million pounds and the largest shelled 5 million pounds or more. In 1974, the number of shellers handling more than 5 million pounds increased to 10, up from eight in 1961, while the number of small shellers declined from 18 to five. In fact, all of the decline in firm-numbers occurred in the three smaller groups—those selling less than 3 million pounds. The number of firms declined from 57 to 23 and the percentage of the crop handled by the three smaller groups of firms declined from 31 to 16 percent. Meanwhile, the number of firms selling 3 million pounds or more increased from 17 to 21 and the percentage of the crop they handled increased from 69 to 84. This is a continuation of a trend begun in the 1950's. If this continues, probably less than 20 multi-shelling-plant firms will shell all of the pecans by the mid-1980's.

Corporations are Largest Firms in Industry (Table 2)

Apparently most of the firms that left the industry between 1961 and 1974 were individual proprietorships and partnerships. The number of corporations in 1974 was 33, up from 32 in 1961. During the same period, proprietorships declined from 23 to five and partnerships from 17 to five.

Corporations now comprise approximately 75 percent of the pecan shelling firms while proprietorships and partnerships are approximately 11.5 percent each.

Walnuts

Interviews were obtained with 15 firms in California and seven in Oregon that market walnuts. Most of these firms also market other tree nuts, such as filberts, almonds, and pistachios. Most of the Oregon handlers were small. The Diamond Walnut Growers, Inc., a California cooperative, is by far the largest marketer of walnuts. It markets a vast majority of all the in-shell walnuts and also handles more shelled walnuts than any other handler. About six of the other California walnut handlers are large. Most of the rest are small and tend to emphasize the shelled market rather than the in-shell. Only one of the Oregon shellers is a real factor in the walnut industry. Although Oregon produces a walnut of good quality, recent adverse weather has decreased the number of trees. In addition, the Oregon crop is harvested much later than in California, yields per acre and kernel percentages are lower, and processing costs are higher. Thus, Oregon walnuts are at a competitive disadvantage with California walnuts.

Of the California firms that market walnuts, six are corporations or subsidiaries of larger corporations, one a cooperative, five proprietorships

Table 1—Number of shellers and processors and net sales by size of firm 1961 and 1974

Size of firm by net sales (Million pounds)	Pecan firms				Net sales[1]			
	Number		Percent of total		1,000 Pounds		Percent of total	
	1961	1974[2]	1961	1974	1961	1974	1961	1974
5 and above	8	10	11.0	22.7	78,083	136,756	48.0	68.1
3 to 4.9	9	11	12.0	25.0	34,463	36,183	21.0	18.0
1 to 2.9	20	15	27.0	34.1	34,171	24,475	21.0	12.2
.5 to .9	19	3	26.0	6.8	13,636	2,354	8.0	1.2
Below .5	18	5	24.0	11.4	3,555	916	2.0	.5
Total	74	44	100.0	100.0	163,908	200,684	100.0	100.0

[1] Shelled sales only. [2] Firms that shelled pecans in 1974.

Table 2—Number of pecan shellers and processors, by ownership characteristics and size of firm, 1961 and 1974

Size of firm by net sales (million pounds)	Type of organization							
	Proprietorship		Partnership		Cooperative		Corporation	
	1961	1974	1961	1974	1961	1974	1961	1974
5 & above	0	1	2	0	1	1	5	8
3 to 4.9	2	1	1	0	0	0	6	10
1 to 2.9	4	0	9	3	0	0	7	12
.5 to .9	4	0	3	2	0	0	12	1
Below .5	13	3	2	0	1	0	2	2
Total	23	5	17	5	2	1	32	33

and three partnerships. Most of the firms in California that are primarily walnut handlers also market other tree nuts, and most of the firms in Oregon that handle walnuts were primarily filbert handlers.

Distribution of Tree Nuts Changes

Outlets for shelled Pecans Change

Bakeries continue to be the leading user of pecans, purchasing more than 28 percent of those sold by 43 pecan shellers in 1974, compared with 38 percent in 1961 (figure 6). Confectioners are the second major outlet for pecans, using about 24 percent of the shelled sales in 1974, up from 20 percent in 1961. Most of the other outlets remained about the same at less than 10 percent, but gift packs and mail order sales rose from 1.0 percent in 1961 to 6.4 percent in 1974, and exports accounted for 5.3 percent in 1974 versus zero in 1961. Other new outlets were cereal manufacturers, 1.9 percent of shelled sales, and church donations or sales.

Outlets for Walnuts, Almonds and Filberts also Vary

For comparison, charts of the distribution of almonds, walnuts, and filberts during the 1973-74 season were also made. These charts were developed from information obtained through personal interviews with almond, filbert, and walnut handlers in California and Oregon.

The in-shell market continues to be more important for walnuts than the shelled market. About 58 percent of the walnuts are sold in-shell and 42 percent are sold shelled. Nearly all of the in-shell walnuts are sold to grocery wholesalers and chain stores (30 percent) or exported (20 percent) (Figure 7).

The largest proportion of shelled walnuts, 23 percent, are sold unsalted in retail packages to grocery wholesalers and chain stores, down from 41 percent in 1962-63. Other retailers used about 4.5 percent. Food manufacturers used 4 percent of the shelled walnuts and bakers 3 percent, down from 8 percent in 1962-63. Ice cream manufacturers and confectioners used 1.7 percent and 1.0 percent, respectively, down from 3 percent and 6 percent in 1962-63.

Approximately 4.5 percent of the almonds are sold in-shell. The in-shell nuts are sold in retail packages primarily at the holiday season (Figure 8).

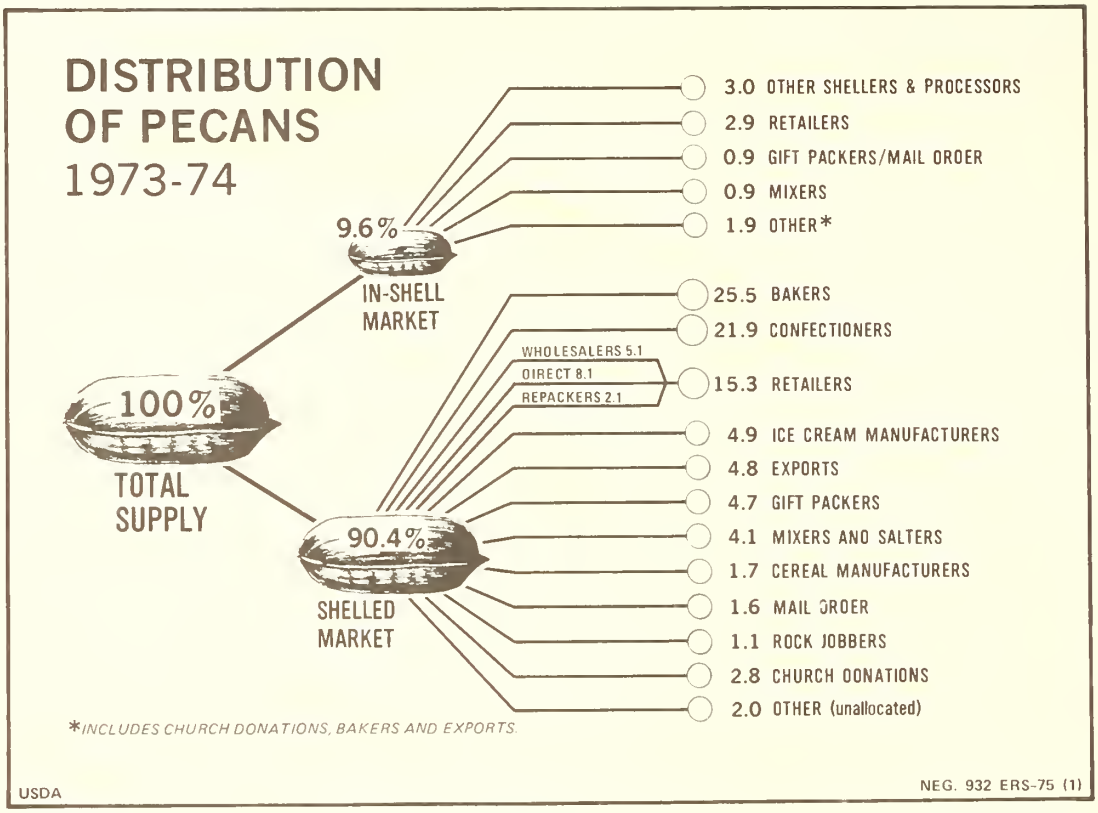
Most almonds, 95.5 percent, are sold shelled. The almond industry is the great American success story in marketing. Perpetually in trouble with huge supplies and limited markets. the almond handlers have always come up with new markets and new uses. Nearly 52 percent of all the shelled almonds are exported and the other producing countries are receiving more competition from U.S. producers than they can handle.

Domestically, the major markets for almonds are: confectioners 11.2 percent; salters, 7.6 percent; cereal manufacturers, 6.5 percent; bakers, 4.5 percent; other food manufacturers, 3.8 percent; ice cream manufacturers, 3.7 percent; and other outlets (retailers, wholesalers, mail order, etc.) a total of 6 percent.

About 70 percent of the filberts are sold in-shell, up from 60 percent in 1962-63. Mixers purchased 38.5 percent, grocery wholesalers 19.1 percent, chain stores and other retailers 2.5 percent (Figure 9). Bakers purchased 7.2 percent of the in-shell filberts in 1974 and exports accounted for 2.6 percent. These percentages are comparable to 1962-63 except that exports declined from 5 percent in 1962-63.

Sales of tree nuts are especially affected by rising costs of other food commodities. Tree nuts are a relatively minor ingredient in bakery, confectionery, and other food items. As recent costs of flour, sugar, and other major ingredients have risen, food manufacturers have tried to reduce their production costs by reducing the quantity of nuts used or eliminating the nuts entirely. When the product is advertised as a nut product, however, such as pecan pralines, almond bars, walnut cake or filbert cookies, some manufacturer reduce the quantity of nuts used in the product or raise the price, or both.

The tree nut industries can partially overcome the decreased use by food manufacturers and increase consumer demand by developing new uses and new product forms and by strong advertising and sales promotion programs. The almond industry, and to a lesser extent the walnut industry, has been motably successful in this area.



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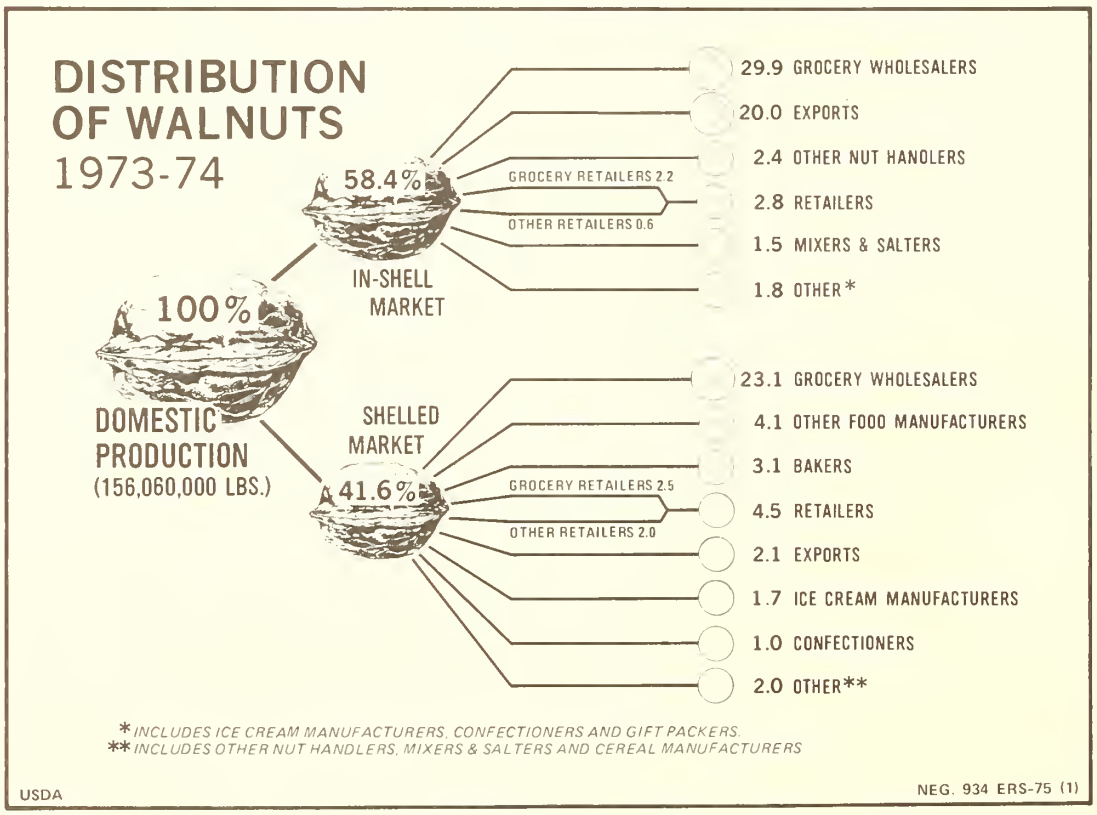

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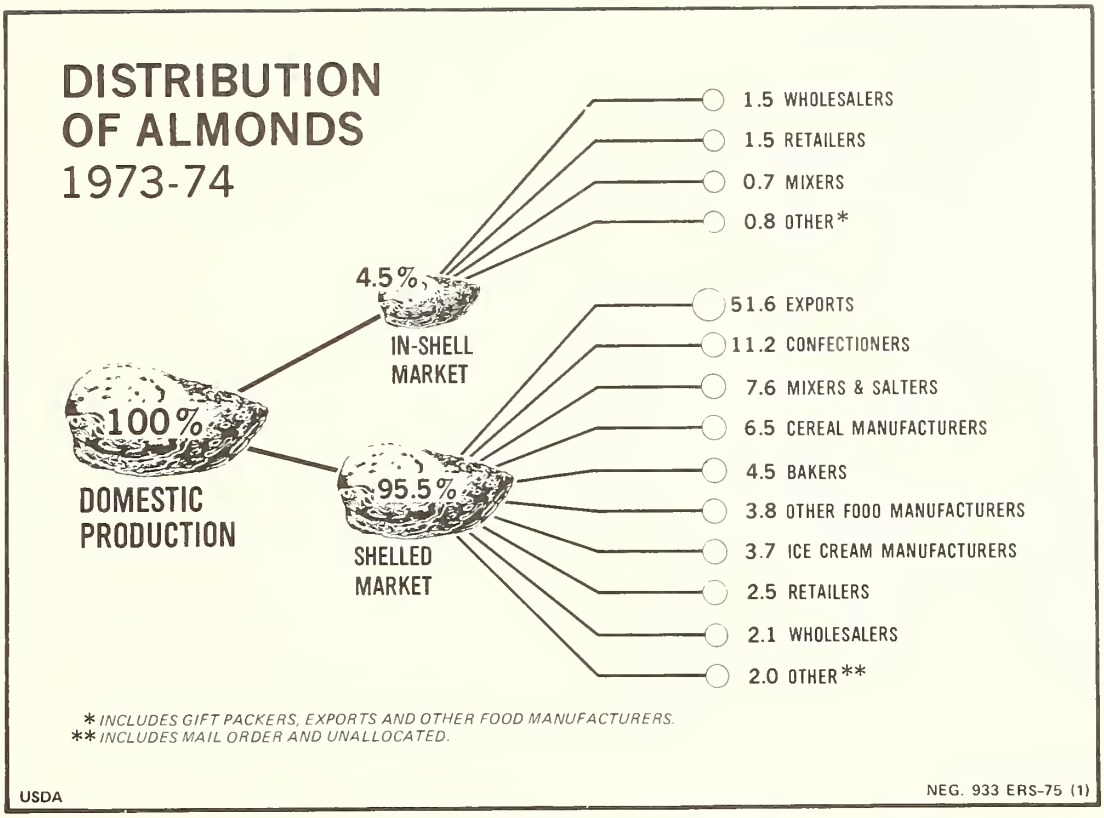

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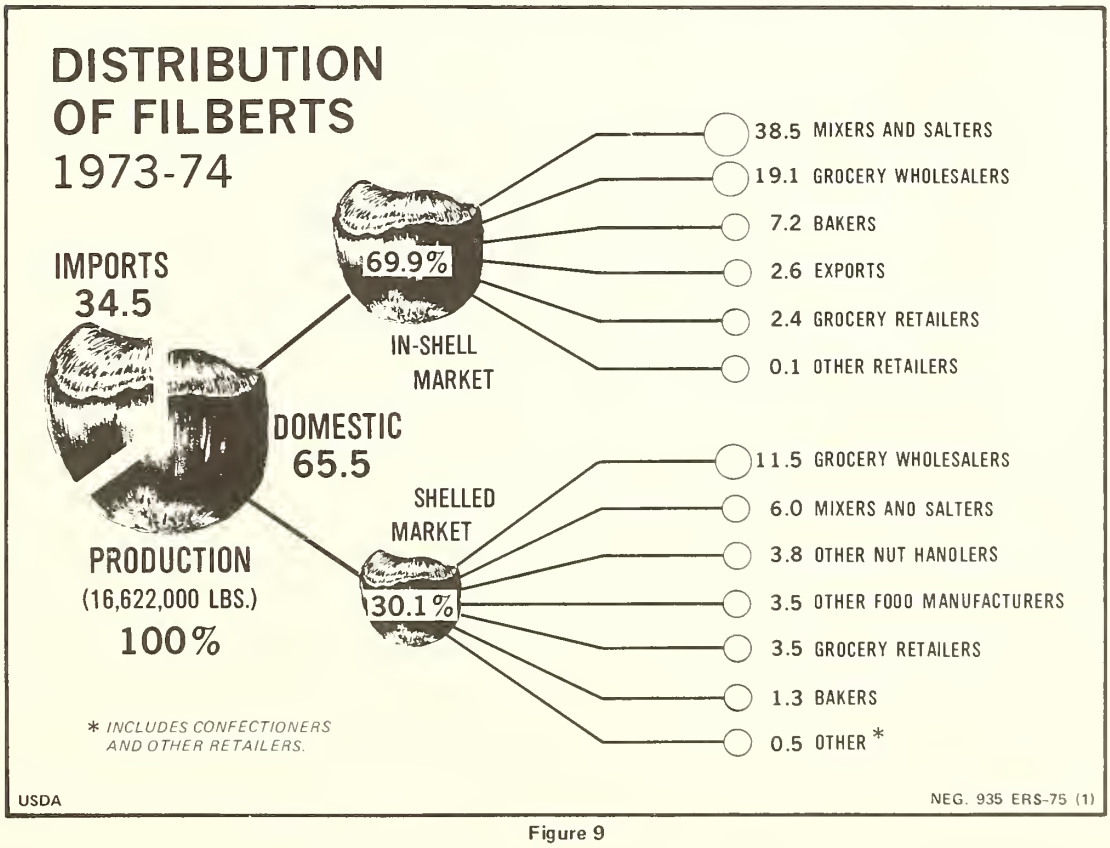

Figure 9

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